

The following is a listing of claims in the subject application with claim 1 shown as amended and claim 7 cancelled:

LISTING OF CLAIMS

1. (currently Amended) An appearance inspection apparatus for inspecting the appearance of a body comprising:

- a scanning head for scanning the body to be inspected; and
- a main unit for controlling the inspection apparatus and said scanning head;

wherein said scanning head further comprises:

- a lighting unit having multiple light sources for projecting light onto a surface of said body to be inspected at different given angles with respect to said body; and
- a one-dimensional sensor comprising at least a plurality of arrays of multiple arrays of multiple image capturing elements for detecting light reflected from said surface of said body to produce image data; and

wherein said main unit further comprises:

- a head control unit for providing a control signal to said lighting unit for alternately switching between each of said multiple lighting sources switching multiple light sources to create into different lighting states from the light projected by each of said lighting sources respectively and for controlling the relative motion of said scanning head relative to said body;
- a memory control unit for storing in memory image data corresponding to the projected light produced by said one-dimensional sensor from each lighting source respectively; and
- an analysis unit for correcting shading resulting from ~~in~~ said image data for each of ~~in accordance with~~ the different lighting states switched by said head control unit to obtain an appearance inspection image of said body to be inspected.

2. (Original) The appearance inspection apparatus of Claim 1 wherein said one-dimensional sensor comprises an array of multiple capturing elements corresponding to three (RGB) colors.

3. (Original) The appearance inspection apparatus of claim 2 wherein said main unit further comprises a correction value memory unit for storing digital correction values as a table for each array of said RGB image capturing elements.

4. (Original) The appearance inspection apparatus of claim 3 wherein said correction values are utilized to correct shading corresponding to each lighting state of said lighting unit and

wherein said analysis unit corrects shading of said image data with reference to said table kept in said correction value memory unit.

5. (Original) The appearance inspection apparatus of Claim 1 wherein said multiple light sources of said lighting unit include:

- a side light source, which projects light onto the surface of said body to be inspected at an angle; and
- a slit light source, which projects a slit light at an angle; and

wherein said head control unit alternately switches said side light source and said slit light source for lighting said surface.

6. (Original) The appearance inspection apparatus of Claim 2 wherein said multiple light sources of said lighting unit include:

- a side light source, which projects light onto the surface of said body to be inspected at an angle; and

- a slit light source, which projects a slit light at an angle; and

wherein said head control unit alternately switches said side light source and said slit light source for lighting said surface.

7. (Canceled)